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**From:** Laidlaw, Tina [Laidlaw.Tina@epa.gov]  
**Sent:** 1/24/2022 3:20:09 AM  
**To:** Jackson, Susank [Jackson.Susank@epa.gov]  
**CC:** Alers-Garcia, Janice [Alers-Garcia.Janice@epa.gov]; Wirick, Holiday [wirick.holiday@epa.gov]  
**Subject:** RE: Biocriteria Adoption in State Water Quality Standards

Susan,

Thanks so much for sharing this response with us!

Please also include Holly Wirick in any responses. Holly is the EPA WQS contact for ND so if you could please include both of us, that would be great. Thanks!

Holly, perhaps you and I can chat about how/if we want to do any additional follow-up. I know there is a lot going on with ND WQS more broadly these days.

Tina

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**From:** Jackson, Susank <Jackson.Susank@epa.gov>  
**Sent:** Friday, January 14, 2022 9:07 AM  
**To:** Laidlaw, Tina <Laidlaw.Tina@epa.gov>  
**Cc:** Alers-Garcia, Janice <Alers-Garcia.Janice@epa.gov>  
**Subject:** FYI: Biocriteria Adoption in State Water Quality Standards

Our response to a query from Dr Hearne, North Dakota State University, re dates that States have adopted bc into WQS.

You may want to follow up with him – we are not sure if he is focused primarily on a region in the country or across the whole country. If he inquires further for more information, we would also like to bring you into the loop as a cc. OK?

Susan and Janice

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**From:** Flaherty, Colleen <Flaherty.Colleen@epa.gov>  
**Sent:** Friday, January 14, 2022 8:14 AM  
**To:** Jackson, Susank <Jackson.Susank@epa.gov>; Thomas, Dana <Thomas.Dana@epa.gov>  
**Cc:** Alers-Garcia, Janice <Alers-Garcia.Janice@epa.gov>  
**Subject:** RE: Biocriteria Adoption in State Water Quality Standards

EXCELLENT response! Thank you!

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**From:** Jackson, Susank <Jackson.Susank@epa.gov>  
**Sent:** Thursday, January 13, 2022 6:18 PM  
**To:** robert.hearne@ndsu.edu  
**Cc:** Alers-Garcia, Janice <Alers-Garcia.Janice@epa.gov>  
**Subject:** Biocriteria Adoption in State Water Quality Standards

Dr. Hearne,

Thank you very much for reaching out EPA with your information request on the dates of adoption of biocriteria into State's Water Quality Standards. As you indicated in your email, Table 2 of the Information on Bioassessment and Biocriteria Programs for Streams and Wadeable Rivers (<https://www.epa.gov/wqc/table-2-biocriteria-adoption-status-and-use-assemblages-bioassessment-programs>) summarizes the latest biocriteria adoption status and use of assemblages for all 50 states, the District of Columbia, Puerto Rico, and U.S. Virgin Islands. The information on this table and associated contents were last updated in April 2021. To access specific State information (e.g. the water quality standards, SOPs, protocols, and/or technical support documents and adoption dates), we recommend you visit the individual Bioassessment and Biocriteria Program pages of your interest. You can access the individual State pages by clicking on the map on the following webpage:

<https://www.epa.gov/wqc/information-bioassessment-and-biocriteria-programs-streams-and-wadeable-rivers>.

The dates on when states adopted biocriteria are provided in the state documents that are referenced in each state summary. Every state webpage on the USEPA website has a link to the state documents and protocols. These documents and/or protocols are the source of the summarized information and reflect the state's perspective and process. The dates for adoption of biological criteria will be included in the state documents or referenced.

We hope the information provided helped addressing your request. Please feel free to reach back to us for clarification or additional inquiries.

Respectfully,

Susan Jackson ([Jackson.Susank@epa.gov](mailto:Jackson.Susank@epa.gov)) and Janice Alers-Garcia ([Alers-Garcia.Janice@ep.gov](mailto:Alers-Garcia.Janice@ep.gov))

US EPA Office of Water/Office of Science and Technology

Biological Criteria Program

Request for information:

I am a Professor of Agribusiness and Applied Economics at North Dakota State University. I will be supervising an MS thesis on the adoption of numeric water quality criteria. I will use EPA data as presented at <https://www.epa.gov/nutrient-policy-data/state-progress-toward-developing-numeric-nutrient-water-quality-criteria>. The information on this page provides a useful timeline of adoption of numeric standards. This can be used as a dependent variable in an adoption study. I will assess this adoption in terms of geographic, economic, and political explanatory variables. It occurs to me that I can use this set of state-level explanatory variables to analyze adoption of bioassessment and other water quality protocols/procedures. There is an undated table at <https://www.epa.gov/wqc/table-2-biocriteria-adoption-status-and-use-assemblages-bioassessment-programs>. I could assess the adoption of bioassessment. But does the EPA have information on when these bioassessment procedures/protocols were adopted by the states?

I would be interested in any response and to communicate with anyone at EPA who has information on state water quality programs.

Dr. Robert Hearne  
North Dakota State University